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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/604,939	06/27/2000	Marco A. DeMello	MSFT-0186/154572.1	5227

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EXAMINER	
ZHEN, LI B	

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/604,939	DEMELLO ET AL.	
	Examiner	Art Unit	
	Li B. Zhen	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-28 and 37-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-28 and 37-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 14 – 28 and 37 – 44 are pending in the application. Claims 1 – 13 and 29 – 36 are cancelled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 16, 2005 has been entered.

Oath/Declaration

3. On November 5, 2002, applicant submitted a request to add two inventors not named in the declaration (37 CFR 1.48(a)). A statement from each person being added as an inventor that the error in inventorship occurred without deceptive intention on his or her part (37 CFR 1.48(a)(1)) is required. Examiner was only able to locate a statement by one of the added inventors (Kathryn E. Hughes), and was unable to locate a statement by Frank D. Byrum.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 14 – 19, 21 – 28 and 37 – 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent NO. 6,718,361 to Basani [cited in the previous office action] in view of U.S. Patent Application Publication NO. 2002/0002611 to Vange [cited in the previous office action] further in view of U.S. Patent NO. 6,513,117 to Tarpenning et al. [hereinafter referred to as Tarpenning].**

7. As to claim 14, Basani teaches the invention substantially as claimed including a system for providing a content item [apparatus for efficient and reliable control and distribution of data files; col. 4, lines 60 – 67], the system comprising:

a plurality of download servers [servers 26, 28 constituting elected group leaders 30 for distributing content or content changes to distribution agents 32, 34 in each cluster 24, Fig. 1; col. 8, lines 20 – 36], wherein each download server receives a request for the content item [users can begin to access the updated content from any of the servers 26, 28. User access to content on a given server can be efficiently

managed, according to service level agreements; col. 8, lines 20 – 37], each of the download servers having:

a cache which stores the content item [a list of files currently contained in each network cache 617 on each network segment; col. 20, lines 35 – 52]; and

a first object [elected group leaders 30 for distributing content or content changes, Fig. 1; col. 8, lines 20 – 38] which receives a first message to invalidate the content item in the cache [CCM and/or GL will send invalidation messages to the cache on each network segment; col. 20, lines 35 – 52] and which invalidates the content item in the cache in response to receipt of the first message [When a content update occurs, the list of files contained in the cache will be compared, and new content will be automatically distributed to the network cache. This guarantees that content being served from network caches is always up to date and fresh; col. 37 – 54]; and

a fulfillment server [distribution server 16, Fig. 1; col. 8, lines 20 – 38] having:

a content store which stores the content item [Content is then turned over to the centralized Content Control Manager (CCM) 18, running on the distribution server 16; col. 8, lines 45 – 60]; and

a first database which stores information relating to the content item [database 22 is a centralized repository for storing configuration information, policies, job information, status logs, snapshots and checkpoints; col. 9, lines 45 – 54]; and

a second object [CCM] which receives a notification [CCM contains an assignment creator and manager 44 which responds to scheduler job requests to initiate a distribution job; col. 12, lines 43 – 55] that the information in the first database

has been updated or deleted [Administrative inputs for the content mover 18 are...stored in the database 22....Content Update job is defined as the collection of information that defines what content is to be updated, where it is to be distributed to, when and how often it is distributed, and what policies/rules apply; col. 9, lines 13 – 45], and which generates, in response to the notification, the first message [invalidation messages] for dispatch to the plurality of download servers [CCM and/or GL will send invalidation messages to the cache on each network segment; col. 20, lines 35 – 52].

8. Although Basani clearly teaches download server for storing content items [servers 26, 28 constituting elected group leaders 30 for distributing content or content changes, Fig. 1; col. 8, lines 20 – 36] and caches [a list of files currently contained in each network cache 617 on each network segment; col. 20, lines 35 – 52], Basani does not specifically teach each download server containing a cache.

However, Vange teaches a content distribution system [a web site delivery system in which a plurality of front-end web servers and back-end web servers cooperate to deliver content and services of the web site; paragraph (0026), p. 3] that includes download servers [front-end 201; paragraph (0066), p. 7 – 8] that each contain a cache [caching mechanism 403, Fig. 5; paragraph (0070), p. 8].

9. It would have been obvious to a person of ordinarily skilled in the art at the time of the invention to apply the teaching of including a cache in each download server as taught by Vange to the invention of Basani because a cache provides fast content retrieval by storing frequently and/or recently accessed web pages or network resources that are anticipated to be accessed [paragraph (0070), p. 8 of Vange].

10. Basani as modified does not specifically teach a request comprising encrypted data that represents a public key associated with a user and identification of the content item.

11. However, Tarpenning teaches a request comprising encrypted data [col. 5, lines 39 – 50] that represents a public key associated with a user from whom the request is received and an identification of the content item [User Certificate contains a different public/private key pair that will be used for decrypting content; col. 3, lines 8 - 22], the request having been generated at a first server with which the user has previously engaged in a transaction to purchase the content item [identifies selected books or text that the user wishes to purchase in electronic form. Once the customer begins the purchase transaction for the identified books...the applet or helper application 125 provides the customer or reader specific indicia 117 to the retailer's server; col. 4, lines 52 - 60], the encrypted data having been encrypted with a first key [encryption is typically customized for the electronic ID of the particular reader 115, typically using the key or ID uniquely associated with that reader; col. 5, lines 45 – 50], a first server being separate from the plurality of download servers and from the fulfillment server [col. 4, lines 15 – 20 and 35 – 37; col. 5, lines 25 – 28], the first key being known to the first server and to the plurality of download servers but not to the user [col. 6, lines 38 – 55], each of the plurality of download servers comprising logic that applies the first key to the encrypted data to retrieve the identification of the content item and the first key [encryption is typically customized for the electronic ID of the particular reader 115, typically using the key or ID uniquely associated with that reader, so that the encrypted

file can only be displayed as clear text on the requesting reader 115; col. 5, lines 35 – 58], and that uses the public key to encrypt a second key that is used to decrypt the content item [col. 7, lines 20 – 26], the content item being provided to the user in a form encrypted with the second key [Revocation Token is then encrypted at step 1105 using the Authentication Server Private Key, after which the result is encrypted using the Device Public Key at step 1110. The double encrypted result is then signed at step 1115 with the Authentication Server Private Key and sent (at step 1120) to the first device as a Revocation Certificate; col. 8, line 59 - col. 9, line 8] and including the second key in a form encrypted by the public key [col. 7, lines 20 – 26].

12. It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of encrypted data that represents a public key associated with a user and identification of the content item as taught by Tarpenning to the invention of Basani as modified because this provides a secure system and method for generating and distributing encryption keys both during manufacturing and thereafter, and for transferring existing digital rights in data from a first device to a replacement or other device [col. 2, lines 25 - 30 of Tarpenning].

13. As to claim 15, Basani as modified teaches the fulfillment server further includes a second database which stores a log of events [status logs] occurring on the plurality of download servers [database 22 is a centralized repository for storing configuration information, policies, job information, status logs; col. 9, lines 45 – 55 of Basani], wherein each of the plurality of download servers generates a second message for

dispatch to the fulfillment server in response to the events [Each server then sends its report to the GL, the-GLs send their own reports to the CCM, and the commit status reports are processed and logged by the CCM; col. 20, lines 2 – 15 of Basani], and the second object receives the second message and logs the events in the second database [CCM updates the database for every report received; col. 20, lines 3 – 15 of Basani].

14. As to claim 16, Basani as modified teaches the events include the downloading of the content item to said user who is a purchaser of the content item [invention also dovetails with existing performance-oriented products so that service-level reporting can be generated; col. 7, lines 25 – 60 of Basani], the user having engaged in a purchase transaction with the first server, the first server including functionality to determine whether to generate the request or not to generate the request depending on whether the user has completed the purchase transaction [col. 4, lines 52 – 67 of Tarpenning].

15. As to claim 17, Basani as modified teaches the content item is sold by a retailer for download by one of the plurality of download servers [Some packets will comprise data that need be supplied to web server 210 (e.g., customer credit information, form data and the like); paragraph (0071), p. 8 of Vange], and wherein the first database further stores information relating to the retailer [CCM updates the database used for tracking network status, and updates the list of members that are available to participate in the content groups; col. 15, lines 18 – 49 of Basani].

16. As to claim 18, Basani as modified teaches the plurality of download servers is hosted by the retailer [web site is owned by the content provider such as an e-commerce vendor whereas a web server refers to set of programs running on one or more machines coupled to an Internet, intranet, or other network node. The web site 210 may be hosted on the site owner's own web server, or hosted on a web server owned by a third party; paragraph (0039), p. 4 – 5 of Vange].

17. As to claim 19, Basani as modified teaches the user has previously obtained the public key by engaging in a transaction [col. 4, lines 52 – 60 of Tarpenning] with a second server that distributes and installs public keys and their corresponding private keys on machines [col. 2, lines 57 – 65 of Tarpenning], the second server comprising logic that performs acts comprising:

maintaining an association between the user, the public key, and a private key associated with the public key [col. 3, lines 8 – 22 of Tarpenning];

receiving a request to install the public key and the private key on a machine [col. 2, lines 57 – 65 of Tarpenning];

authenticating the user from whom the request is received as a condition to installing the public key and the private key on the machine [col. 2, line 65 – col. 3, line 21 of Tarpenning];

determining that a limit on the number of machines on which said user's public key and private key may be installed has not been exceeded as a further condition to

installing said public key and said private key on said machine [col. 7, line 60 – col. 8, line 5 of Tarpenning]; and

installing said public key and said private key on said machine by delivering a certificate that includes said public key and said private key with at least said private key being encrypted by a platform public key that is associated with and relatively unique to said machine [col. 7, lines 26 – 60 of Tarpenning].

18. As to claim 21, Basani as modified teaches a plurality of servers to distribute a content item [apparatus for efficient and reliable control and distribution of data files; col. 4, lines 60 – 67 of Basani], the method comprising the acts of:

receiving, at a first of the plurality of servers from a first computing device [servers 26, 28 constituting elected group leaders 30 for distributing content or content changes to distribution agents 32, 34 in each cluster 24, Fig. 1; col. 8, lines 20 – 36 of Basani], a request for the content item [users can begin to access the updated content from any of the servers 26, 28. User access to content on a given server can be efficiently managed, according to service level agreements; col. 8, lines 20 – 37 of Basani], the first server having a first cache [caching mechanism 403, Fig. 5; paragraph (0070), p. 8 of Vange];

determining that no valid copy of the content item exists in the first cache [When the requested data is not within cache 403; paragraph (0070) and (0071), p. 8 of Vange];

obtaining the content item at the first server from a content store [When the requested data is not within cache 403, a request is processed to web server 210; paragraph (0070) and (0071), p. 8 of Vange];

providing the content item to the first computing device [When the requested data is not within cache 403, a request is processed to web server 210, and the returned data may be stored in cache 403; paragraph (0070) and (0071), p. 8 of Vange];

storing the content item in the first cache [the returned data may be stored in cache 403; paragraph (0070) and (0071), p. 8 of Vange];

receiving, at a fulfillment server [distribution server 16, Fig. 1; col. 8, lines 20 – 38 of Basani], a change to an attribute of the content item [Administrative inputs for the content mover 18 are...stored in the database 22....Content Update job is defined as the collection of information that defines what content is to be updated, where it is to be distributed to, when and how often it is distributed, and what policies/rules apply; col. 9, lines 13 – 45 of Basani], said attribute being stored at said fulfillment server [individual components illustrated as being implemented within the distribution server 18, in FIG. 2, such as the GUI 64, logger 66, scheduler 60, database manager 68, and database 22; col. 20, line 64 – col. 21, line 3 of Basani];

the fulfillment server sending a notification to the plurality of servers in response to the change [CCM and/or GL will send invalidation messages to the cache on each network segment; col. 20, lines 35 – 52 of Basani]; and

the first server invalidating the copy of the content item in the first cache [When a content update occurs, the list of files contained in the cache will be compared, and new

content will be automatically distributed to the network cache. This guarantees that content being served from network caches is always up to date and fresh; col. 37 – 54 of Basani] in response to the notification [CCM and/or GL will send invalidation messages to the cache on each network segment; col. 20, lines 35 – 52 of Basani], each of said plurality of servers comprising logic that performs acts comprising: receiving from a user a request to provide said content item to a user said request comprising a public key associated with said user and an identification of said content item said public key and identification [; col. 3, lines 8 – 22 of Tarpenning] being in an form encrypted by a first key [col. 5, lines 45 – 50 of Tarpenning] that is known to each of said plurality of servers and to a first server at which said request is generated but that is not known to said user [col. 6, lines 38 – 55 of Tarpenning], said public key being installed by an activation server on a plurality of machines associated with said user [col. 7, lines 26 – 60 of Tarpenning].

19. As to claim 22, Basani as modified teaches a store-and-forward messaging facility [store-and-forward distribution using a tree; col. 17, lines 10 – 45 of Basani].

20. As to claim 23, Basani as modified teaches the change comprises a change in a physical location of the content item [domain:address mappings within the DNS system are modified; paragraph (0063), p. 7 of Vange].

21. As to claim 24, Basani as modified teaches wherein said activation server enforces a limit as to the number of machines associated with said user on which said public key may be installed, said limit being initially set to a first number, and said limit being increasable beyond said first number if a standard that governs the increase in said limit has been met [col. 7, line 60 – col. 8, line 5 of Tarpenning], said public key being installed on each of said users machines along with a private key corresponding to said public key in a manner so as to make an installation of said private key unusable if said installation of said private key is copied to a machine other than a machine on which said private key has been installed by said activation server [col. 3, lines 23 – 50 of Tarpenning].

22. As to claim 25, Basani as modified teaches encrypted content [Encryption provides data privacy and hash provides for delivery integrity; col. 10, lines 50 – 65 of Basani], and a first cryptographic key which decrypts the encrypted content [a symmetric key cipher such as Data Encryption Standard (DES); col. 10, lines 50 – 65 of Basani].

23. As to claim 26, Basani as modified teaches metadata, wherein the first cryptographic key is sealed with the meta-data [entire assignment file, or an updated file component of an assignment can be hashed and encrypted according to user policies and implemented in the CCM, GLs, and BESs, by means that are known in the art, such as MD5 or SHA1 hash; col. 10, lines 50 – 65 of Basani].

24. As to claim 27, Basani as modified teaches the encrypted content is stored in the cache separately from the first cryptographic key [assignment file, or an updated file component of an assignment can be hashed and encrypted according to user policies and implemented in the CCM, GLs, and BESs, by means that are known in the art, such as MD5 or SHA1 hash and a symmetric key cipher such as Data Encryption Standard (DES); col. 10, lines 50 – 65 of Basani].

25. As to claim 28, Basani as modified teaches the change comprises a change in the meta-data of the content item [assignment message contains instructions for creating, moving/copying, removing, or modifying directories or file content on remote servers, including parameters for any required compression and encryption; col. 5, lines 55 – 67 of Basani].

26. As to claim 37, this is similar in scope to claim 21; therefore, this is rejected for the same reasons as claim 21 above. As to the additional limitations, Basani as modified teaches request being received from a user and having been generated at a server remote from said user [col. 4, lines 52 – 60 of Tarpenning], said request comprising an identification of a content item and a public key associated with said user [col. 3, lines 8 – 22 of Tarpenning], said request being in a form encrypted with a first cryptographic key that is known to said plurality of servers and to said server remote from said user, but that is not known to said user [[col. 6, lines 38 – 55 of Tarpenning],

said content item being encrypted in a form that is decryptable with said first cryptographic key [col. 5, lines 35 – 58 of Tarpenning], said first cryptographic key being included in said content item in a from encrypted with said public key [col. 8, line 59 - col. 9, line 8 of Tarpenning].

27. As to claims 38, 39 and 41 – 44, these are product claims that correspond to method claims 22, 23 and 25 – 28; note the rejections to claims 22, 23 and 25 – 28 above, which also meet these product claims.

28. As to claim 40, Basani as modified teaches the change comprises a change in a level of protection to be applied to the content item [CCM then communicates with other management services to obtain information about the task details and policy settings of the job; col. 10, lines 35 – 52 of Basani].

29. **Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Basani as modified by Vange and Tarpenning further in view of U.S. Patent NO. 6,425,017 to Dievendorff [cited in the previous office action].**

30. As to claim 20, Basani as modified does not specifically teach MSMQ independent clients.

31. However, Dievendorff teaches MSMQ independent clients [client's method invocations with their call parameters and associated data into messages, and also

uses a messaging queuing API (such as, the "Microsoft Message Queue" or "MSMQ") to place the messages in a method invocations message queue 158; col. 12, line 55 – col. 13, line 15].

32. It would have been obvious to a person of ordinarily skilled in the art at the time of the invention to apply the teaching of MSMQ independent clients as taught by Dievendorff to the invention of Basani as modified because this allows a client to continue execution asynchronously from a invoked method by automatically queuing the method invocation, and issue the queued method invocation to the object at a potentially later time [col. 5, lines 1 - 17 of Dievendorff].

Conclusion

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2194

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